

Annual Drinking Water Quality Report

SOUTHERN REGION ALLEGANY DISTRIBUTION CENTER

MD001-0045 Southern Region (Keyser)

Annual Water Quality Report for the period of January 1 to December 31, 2016

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of the drinking water used by SOUTHERN REGION ALLEGANY DISTRIBUTION SYSTEM is purchased Surface Water.

For more information regarding this report contact:

Mark Yoder
301-777-5933 ext. 209

Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA'S Safe Drinking Water Hotline at (800)-426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDs or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from material and components associated with service lines and home plumbing. We cannot control the variety of material used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about the lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Source Water Information

Source Water Name	Type of Water	Report Status	Location
CC-MD0010008-TPO1	PURCHASED-MD0010008 SW	SW	N

Also see City of Keyser Water Quality Report

2016 Regulated Contaminants Detected

Water Quality Test Results

Maximum Contaminant Level Goal or MCLG:	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Contaminant Level or MCL:	The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum residual disinfectant level goal or MRDLG:	The level of a drinking water disinfectant below which there is no known or expected risk to health, MRDLGs do not reflect the benefits to the use of disinfectants for control of microbial contaminants.
Maximum residual disinfectant level or MRDL:	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Avg.:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
na:	not applicable

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine		0.01	0-0.1	MRDLG=4	MRDL=4	ppm	N	Water additive used to control microbes.

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Haloacetic Acids (HAA5)*	42	19.66-56.4	No goal for the total	60	ppb	N	By-product of drinking water disinfection
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Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Total Trihalomethanes (TTHM)	57	13.5-57.87	No goal for the total	80	ppb	N	By-product of drinking water disinfection
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Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Annual Drinking Water Quality Report 2016
City of Keyser
111 N. Davis St.
PWSID# 3302915
February 17, 2017

Why am I receiving this report?

In compliance with the Safe Drinking Water Act Amendments, City of Keyser Water System is providing its customers with this annual water quality report. This report explains where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The information in this report shows the results of our monitoring for the period of January 1st to December 31st, 2016 or earlier if not on a yearly schedule.

If you have any questions concerning this report, you may contact Steven Paugh at 304-788-3913. If you have any further questions, comments or suggestions, please attend any of our regularly scheduled water board meetings held on the 1st Monday of each month at 3:00 pm in the City Hall Council Chambers, 111 N. Davis Street, Keyser, WV.

Where does my water come from?

Your water source is surface water from New Creek. New Creek receives most of its water from Dam Site 14 in Grant County. Also, there are seven other control dams and various small streams that contribute water to New Creek.

Source Water Assessment

A Source Water Assessment was conducted in 2003 by the West Virginia Bureau for Public Health. (WVBPH). The intake that supplies drinking water to the City of Keyser has a higher susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. This does not mean that this intake will become contaminated; only that conditions are such that the surface water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The source water assessment report which contains more information is available for review or a copy will be provided to you at our office during business hours or from the WVBPH 304-558-2981.

Why must water be treated?

All drinking water contains various amounts and kinds of contaminants. Federal and state regulations establish limits, controls, and treatment practices to minimize these contaminants and to reduce any subsequent health effects.

Contaminants in Water

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits of contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The source of drinking water (both tap and bottled water) includes rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals, and, in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring, or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Water Quality Data Table

Definitions of terms and abbreviations used in the table or report:

MCL - Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technique.

MRDLG - Maximum Residual Disinfectant Level Goal, or the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect benefits of use of disinfectants to control microbial contaminants.

MRDL - Maximum Residual Disinfectant Level, or the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary to control microbial contaminants.

AL - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

TT - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

Abbreviations that may be found in the table:

ppm - parts per million or milligrams per liter

ppb - parts per billion or micrograms per liter

NTU - Nephelometric Turbidity Unit, used to measure cloudiness in water

NE - not established

N/A - not applicable

The City of Keyser Water system routinely monitors for contaminants in your drinking water according to federal and state laws. The tables below show the results of our monitoring for contaminants.

Table of Test Results - Regulated Contaminants – City of Keyser

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity	N	0.1 (High) 100% mo. Samples <1	NTU	0	TT	Soil Runoff
Total organic carbon	N	1.8	ppm	NA	TT	Naturally present in environment
Inorganic Contaminants						
Barium	N	0.0600	ppm	2	2	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper*	N	0.079	ppm	1.3	AL=1.3	Corrosion of household plumbing
Fluoride	N	0.44 Annual avg. Range 0.50-1.00	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from aluminum and fertilizer plants
Lead*	N	1.4	ppb	0	AL=15	Corrosion of household plumbing
Nitrate	N	0.05	ppm	10	10	Runoff from fertilizer use; erosion of natural deposits
Volatile Organic Contaminants						
Chlorine	N	1.4 Annual avg. Range 0.2-2.0	ppm	4 MRDLG	4 MRDL	Water additive used to control microbes
Haloacetic acids (HAAC5) (Davis Street Police Station)	N	57.9 Annual avg. Range 45.5-62.9	ppb	NA	60	By-product of drinking water disinfection

Haloacetic acids (HAAC5) (Clary Street Learning Center)	N	42.2 Annual avg. Range 20.8-43.4	ppb	NA	60	By-product of drinking water disinfection
Total trihalomethanes (TTHMs) (Davis Street Police Station)	N	39.9 Annual avg. Range 50.7-83.1	ppb	NA	80	By-product of drinking water chlorination
Total trihalomethanes (TTHMs) (Clary Street Learning Center)	N	36.2 Annual avg. Range 31.7-75.0	ppb	NA	80	By-product of drinking water chlorination

* Copper and lead samples were collected from 20 area residences on August 5, 2015. Only the 90th percentile is reported. None of the samples exceeded the MCL.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or nervous system, and may have an increased risk of getting cancer.

Table of Test Results - Unregulated Contaminants

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Sodium	N	4.98	ppm	NE	20	Erosion of natural deposits
Sulfate	N	27.4	ppm	250	250	Erosion of natural deposits

WE ARE PLEASED TO REPORT THAT THE CITY OF KEYSER MET ALL FEDERAL AND STATE WATER STANDARDS FOR THE REPORTING YEAR 2016.

Additional Information

The City of Keyser Water System has monitored for numerous other contaminants and none were found to have detects.

Turbidity- The measure of the cloudiness of water. We monitor this because it is a good indicator of the effectiveness of our filtering system

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Keyser is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

This report will not be mailed. A copy will be provided to you upon request at our office during regular business hours.